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10/537,122	12/06/2005	Johannes Georg Schaede	1204.1112101	8386

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CROMPTON, SEAGER & TUFTE, LLC  
1221 NICOLLET AVENUE  
SUITE 800  
MINNEAPOLIS, MN 55403-2420

EXAMINER
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STAFIRA, MICHAEL PATRICK

ART UNIT	PAPER NUMBER
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2886

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10/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

714

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,122	<b>Applicant(s)</b> SCHAEDE, JOHANNES GEORG	
	<b>Examiner</b> Michael P. Stafira	<b>Art Unit</b> 2886	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5-7, 9, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakamori ('257).

### **Claim 1**

Sakamori ('257) discloses providing a first trigger (Fig. 10, Ref. 60a) at a selected first location along the direction of displacement of the substrate for detecting the passage of an edge of the substrate at said first location (Col. 5, lines 51-59); providing a second trigger (Fig. 10, Ref. 60B) at a selected second location after said first trigger along the direction of displacement of the substrate for detecting the passage of an edge of the substrate at said second location (Col. 5, lines 51-59); providing at least a first checkpoint detector (Fig. 10, Ref. 60c) at a selected third location between said first (Fig. 10, Ref. 60a) and second triggers (Fig. 10, Ref. 60b) along the direction of displacement of the substrate (See Fig. 10), said at least first checkpoint detector

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(Fig. 10, Ref. 60c) being adapted to detect the passage of said edge of the substrate at a selected place along said edge which is different than the place at which said first (Fig. 10, Ref. 60a) and second triggers (Fig. 10, Ref. 60b) are adapted to detect the passage of said edge (Col. 10, lines 6-62); detecting the passage of said edge of the substrate at said selected locations by means of said first trigger (Fig. 10, Ref. 60a), said at least first checkpoint detector (Fig. 10, Ref. 60c) and said second trigger (Fig. 10, Ref. 60b); controlling whether the passage of said edge of the substrate was detected by said at least first checkpoint detector (Fig. 10, Ref. 60c) after detection by said first trigger (Fig. 10, Ref. 60a) and before detection by said second trigger (Fig. 10, Ref. 60b); and generating an integrity check failed message in case the passage of said edge of the substrate was not detected by said at least first checkpoint detector (Fig. 10, Ref. 60c) after detection by said first trigger (Fig. 10, Ref. 60a) and before detection by said second trigger (Fig. 10, Ref. 60b)(Col. 11, lines 1-47).

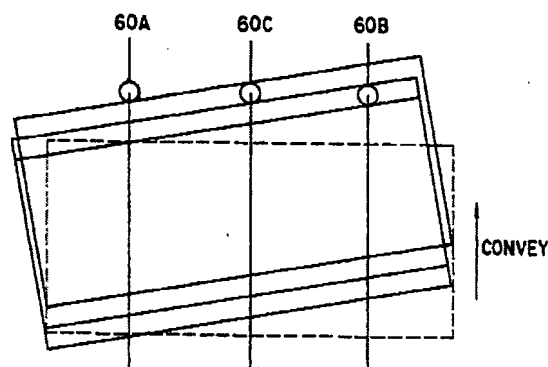


FIG. 10

**Claim 5**

Sakamori ('257) discloses the edge is the leading edge and/or the trailing edge of the substrate (See Fig. 10).

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**Claim 6**

Sakamori ('257) further discloses the detection is made by optical means (Col. 5, lines 51-59).

**Claim 7**

Sakamori ('257) discloses a first trigger (Fig. 10, Ref. 60a) arranged at a selected first location along the direction of displacement of the substrate for detecting the passage of an edge of the substrate at said first location (See Fig. 10); a second trigger (Fig. 10, Ref. 60b) arranged at a selected second location after said first trigger along the direction of displacement of the substrate for detecting the passage of an edge of the substrate at said second location (See Fig. 10) (Col. 10, lines 6-62); at least a first checkpoint detector (Fig. 10, Ref. 60c) arranged at a selected third location between said first (Fig. 10, Ref. 60a) and second triggers (Fig. 10, Ref. 60b) along the direction of displacement of the substrate (See Fig. 10), said at least first checkpoint detector (Fig. 10, Ref. 60c) being adapted to detect the passage of said edge of the substrate at a selected place along said edge which is different than the place at which said first (Fig. 10, Ref. 60a) and second triggers (Fig. 10, Ref. 60b) are adapted to detect the passage of said edge; and a computer element (Fig. 4, Ref. 100) adapted to control whether the passage of said edge of the substrate was detected by said at least first checkpoint detector (Fig. 10, Ref. 60c) after detection by said first trigger (Fig. 10, Ref. 60a) and before detection by said second trigger (Fig. 10, Ref. 60b)(Col. 11, lines 1-47).

**Claim 9**

Sakamori ('257) discloses that said triggers and checkpoint detectors are optical detectors (Col. 5, lines 51-55).

**Claim 11**

Sakamori ('257) discloses at least one control device (Fig. 4, Ref. 100).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamori ('257).

**Claim 2 & 8**

Sakamori ('257) discloses the claimed invention except for two or more checkpoint detectors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Sakamori ('257) with the two or more checkpoint detectors since it was well known in the art that having multiple checkpoint detectors increases the accuracy of detecting a misalignment of an object, therefore increasing the reliability of the measurement.

**Claim 3**

Sakamori ('257) discloses the integrity check failed message is generated in case the passage of said edge of the substrate was not detected by one of said checkpoint detectors after detection by said first trigger and before detection by said second trigger (Col. 11, Lines 1-54).

**Claim 4**

Sakamori ('257) discloses the claimed inventions except for the two checkpoints are located to the corners of the substrate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Sakamori ('257) with the two checkpoints located at the corners of the substrate since it was well known in the art that having the sensors at the corners provides a more accurate measurement of misalignment, therefore increasing reliability of the measurement.

**Claim 10**

Sakamori ('257) discloses the claimed invention except for the triggers and checkpoints are light emitting diodes. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Sakamori ('257) with the light emitting diodes since it was well known in the art that using light emitting diodes decreases the amount of maintenance needed, therefore increasing the reliability of the optical apparatus.

***Response to Arguments***

6. Applicant's arguments filed August 22, 2007 have been fully considered but they are not persuasive.

Applicant takes the position on page 5 of the Remarks that the reference of Sakamori ('257) fails to disclose the first trigger, the second trigger and the at least one checkpoint detector be spatially arranged along a direction of displacement of the substrate etc....

Examiner takes the position that the claim limitations fail to disclose where the detectors are placed in relation to the substrate and nowhere does the limitations disclose they are spatially arranged. The claim limitations only discloses the detector is placed along the direction of

displacement of the substrate, which the reference of Sakamori ('257) clearly shows detectors 60a-60c displaced along the substrate as seen in Figure 10 of Sakamori ('257). The claims limitations do not indicate the substrate has to be parallel or perpendicular to the detectors and therefore the reference of Sakamori ('257) reads on applicant's claimed limitations.

Applicant further takes the position that the arrangement of the sensors of Sakamori ('257) can not act as a trigger for initiating or terminating the detection process as discussed on page 5 of the Remarks.

Examiner takes the position that the claimed limitations fails to disclose the sensors trigger an initiating or terminating the detection process and the only thing the claim discloses is a computer or a control element determines the edge of the substrate was detected by the first checkpoint detector after the first trigger and before the second trigger. The reference of Sakamori ('257) clearly shows that first checkpoint detector 60C is tripped after the first trigger detector 60B and before the second trigger 60A. Further in Col. 10, lines 44-62 the reference discloses if the substrate is bent or torn then the CPU determines the feeding state of the substrate. Therefore, the reference of Sakamori ('257) reads on the claimed limitations.

The applicant further takes the position that Sakamori ('257) does not disclose the claimed invention in which the sensors are spatially arranged along a direction of displacement of the substrate.

The examiner takes the position that as discussed in the above paragraphs the claimed limitations fail to disclose the sensors are spatially arranged and even if it was disclosed in the limitation the definition of spatially means "relating to, occupying, or having the character of



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space". Even using this limitation would not overcome the reference of Sakamori ('257), which shows the detectors occupying space and therefore reads on the invention claimed.

The rejection of claims 2-4, 8, 10 stands as rejected in the above paragraphs and in view of examiner's position regarding independent claims 1 and 7.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael P. Stafira  
Primary Examiner  
Art Unit 2886

October 19, 2007